

Requirements

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THRU : Chief, OO/C
THRU : ATTN: [REDACTED] 25X1A9a
: St/I/A
: Chief, D/S
: Chief, S/TR

30 July 1956

Requirements on Russian Type E Locomotives

BACKGROUND

During World War I US locomotive manufactures built Type E locomotives for Russia. Some of these locomotives are still in operation on the Trans-Siberian railroad. At the end of the war, some of these locomotives which had been built by Baldwin Locomotive Works had not been delivered to Russia, and these were sold

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It is requested that responses to these questions be obtained no later than 10 August 1956.

The requirements are unclassified.

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REQUIREMENTS

The following questions pertain to the 2-10-0 locomotives (Russian Type E) which were built during World War I by US locomotive builders, some of which were sold to the Erie and the Central of Georgia Railroads. There were two varieties of this type built, one with 177,061 pounds weight on drivers, the other with 171,103 pounds weight on drivers. In most other respects the specifications of these varieties were the same: 25 inch cylinder diameter, 23 inch piston stroke, 52 inch driver diameter, 180.3 PSI boiler pressure.

- 1) In what type of service were these locomotives used? How useful would they have been in mainline service? Were they always used only for local service?
- 2) How did these locomotives compare with locomotives of US design of approximately the same weight or tractive effort? Were any modifications made on these locomotives after they were received from the factory?
- 3) What was the maximum tonnage these locomotives could pull over various grades and curves?
- 4) Were dynamometer tests of these locomotives ever made?
 - a) If so, what were results?
 - b) If not, at what driver pull were they rated?
- 5) What were the steaming qualities of this locomotive? How often were water stops and coaling stops made? What type of coal was used in them?
- 6) How did these locomotives ride? (They had high center of gravity).
- 7) At what speeds was it possible to operate them?
- 8) Did these locomotives slip easily?
- 9) What were maintenance problems of these locomotives? How did they hold up? Did they require unusual maintenance? What was the relative frequency of repairs, including boiler work?
- 10) At what cut-off were these locomotives operated at starting? (They were probably designed for 82.3%).

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- 11) Were there any unusual problems in winter with these locomotives?
- 12) What was the average daily run of these locomotives? How did this compare with others of similar weight or tractive efforts?

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